Flight Test Safety Workshop
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Savannah

FLIGHT TEST SAFETY DATABASE

An Online Resource for Flight Test Safety Planning

Presented to: Flight Test Safety Workshop
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Normal people ... believe that if it ain't broke, don't fix it.

Engineers believe... if it ain't broke, it doesn't have enough features yet!

Outline

- **Description/Goal**
- **Background**
- **Demo**
- **Status**
- **Summary & Conclusion**

Description/Goal

- **To develop an interactive web site where we could consolidate flight test safety info in one central location.**
  - Allow testers easy access to a wide range of safety info
    - Allows user to pick and choose what safety items to use.
  - Help 'spread the knowledge' of flight test safety techniques.
    - There should be no safety secrets out there
    - Safety should not be *"proprietary"*

Database Background

- **Challenges in Flight Test Safety:**
  - Lots of different kinds of flight tests!
  - By definition, many are quite hazardous.
    - Nobody wants to see friends get injured or killed.
  - Test assets are getting too expensive.
  - Many different test organizations all over the world.
  - Everyone does safety a little bit differently.
  - Great deal of 'corporate knowledge' out there but not documented and thus often 'dies' with the owner.

Database Background

- **1997 - FAA Order 4040.26A required implementation of a risk management process that:**
  - **Identifies hazards**
  - **Assess the risks**
  - **Identifies/implements mitigating actions**
  - **Accept risk at appropriate level**
- We still found every office did safety differently
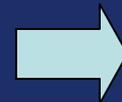
Database Background

- **Solution:**
  - FAA began to develop internal database (2001).
  - NASA began work on "Flight Test Safety Handbook" with eye towards internet also.
  - Teamed together to develop an online database.
  - National Test Pilot School contracted to gather FAA data.
  - Other groups formed to gather military, development and other data (e.g. Icing, high AOA, propulsion…).

Flight Test Safety Database

http://ftsdb.grc.nasa.gov/

On-line Demo

Database Status & Update

- **Complete with FAA data input (Contract).**
- **Last changes: 'data submission' and 'output builder"**
- **Slow trickle of data coming in:**
  - FAA updates, Military and R&D data
  - Almost no non-THA data submitted
- **Debugging when required.**
- **Future (when funding acquired!):**
  - Incorporate lessons learned.
  - Populate non-THA data
  - Improve user friendliness
  - More tutorials
  - FT Safety Committee discussing funding and improvements

Disclaimer

- **The database IS:**
  - a wide array of flight test safety ideas and suggestions
  - A great starting point for your risk assessment process

- **It is NOT:**
  - **an FAA-mandated solution.**
  - **an auto-safety planning device.**
    - **The hazards/causes /mitigations are necessarily generic.**
    - **Your test will have unique problems and will require unique solutions.**

Conclusion

- **Flight testing presents many unique safety challenges.**

- **To meet these challenges we must apply proven safety practices.**

- **Past experience has demonstrated that we are vulnerable to the same safety risks/hazards over and over again (we constantly 're-learn old lessons).**

- **To increase safety, we MUST share safety data.**
  - Workshops, Symposia
  - FTSDb

WE NEED YOUR HELP !

- **PLEASE GO AND USE THE SITE !**
  http://ftsdb.grc.nasa.gov

- **Please Register**
  – So we can track usage and send you updates.
  – So you can submit data and save output layouts, data sets and searches.

- **PLEASE give us feedback.**
  – The good and the bad!
  – Suggestions for improvements.
    - Bart Henwood, (barton.e.henwood@nasa.gov), 661-276-5746
    - John Hed, (john.hed@faa.gov), 425-917-6518
    - "Contact" link on the header of the web site

Thank You !

Questions ?

Home Page

Basic Features

Hot Links Too

Home Page if Registered

Registered User Options